



APPENDIX A

(Continuation of amended Claims 1, 7, 14, 15, 18, 31 and 56 and new Claims 58-61)

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1. (Amended) In a process for making an absorbent sheet material from a web of fibrous material consisting of 100% by weight cellulosic recycle material, the improvement which comprises treating the fibrous material with a debonding composition which includes a synergistic combination of:

(a) a quaternary ammonium surfactant component which includes an imidazolinium salt; and

(b) a nonionic surfactant component present in said debonding composition in an amount of from about 25 to about 60 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component;

wherein said nonionic surfactant component comprises a surfactant selected from the group consisting of group c, d or e and wherein group:

(c) are monoalkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols having an HLB value of greater than about 10 wherein said fatty acids and fatty alcohols have 12 carbon atoms or more;

(d) are dialkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols with an HLB value of greater than about 10 wherein said fatty acids or fatty alcohols have about 16 carbon atoms or more;

(e) are dialkylated nonionic surfactants comprising alkoxylated fatty alcohols or alkoxylated fatty acids having an HLB value of less than about 10 and wherein said fatty alcohols and fatty acids have about 16 carbon atoms or less;

D<sup>2</sup> wherein further the debonding composition is operable to reduce the tensile strength of said sheet by at least about 25 percent by application to said recycle fibrous material at a treatment level of 1 mole of said quaternary ammonium surfactant component per ton of recycle fibrous material.

D<sup>3</sup> 7. (Amended) The improvement according to claim 1, wherein said nonionic surfactant component is present in said debonding composition in an amount of from about 30 to about 50 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component.

14. (Amended) The improvement according to claim 13, wherein said nonionic surfactant component is a polyethylene glycol ester of a fatty acid.

D<sup>4</sup> 15. (Amended) In a process for making an absorbent sheet material from a web of fibrous material consisting 100% by weight of cellulosic recycle material, the improvement which comprises treating the fibrous material with a debonding composition which includes a synergistic combination of:

- (a) a quaternary ammonium surfactant component which includes an imidazolinium salt; and
- (b) a nonionic surfactant component present in said debonding composition in an amount of from about 25 to about 60 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component;

wherein said nonionic surfactant component comprises a surfactant selected from the group consisting of group c, d or e and wherein group:

- (c) are monoalkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols having an **HLB** value of greater than about 10 wherein said fatty acids and fatty alcohols have 12 carbon atoms or more;

(d) are dialkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols with an **HLB** value of greater than about 10 wherein said fatty acids or fatty alcohols have about 16 carbon atoms or more;

(e) are dialkylated nonionic surfactants comprising alkoxylated fatty alcohols or alkoxylated fatty acids having an **HLB** value of less than about 10 and wherein said fatty alcohols and fatty acids have about 16 carbon atoms or less;

wherein further the debonding composition is operable to reduce the tensile strength of said sheet by at least about 40 percent.

18. (Twice Amended) In a process for making an absorbent sheet material from a web of fibrous material consisting predominately of cellulosic recycle fiber, the improvement which comprises treating the fibrous material with a debonding composition which includes a synergistic combination of:

(a) a quaternary ammonium surfactant component which includes an imidazolinium salt; and

(b) a nonionic surfactant component wherein said nonionic surfactant component is present in said debonding composition in an amount of from about 25 to about 60 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component;

wherein said nonionic surfactant component comprises a surfactant selected from the group consisting of group c, d or e and wherein group:

(c) are monoalkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols having an **HLB** value of greater than about 10 wherein said fatty acids and fatty alcohols have 12 carbon atoms or more;

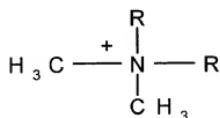
(d) are dialkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols with an **HLB** value of greater than about 10 wherein said fatty acids or fatty alcohols have about 16 carbon atoms or more;

(e) are dialkylated nonionic surfactants comprising alkoxylated fatty alcohols or alkoxylated fatty acids having an **HLB** value of less than about 10 and wherein said fatty alcohols and fatty acids have about 16 carbon atoms or less.

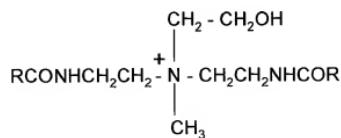
31. (Twice Amended) In a process for making an absorbent sheet material from a web of fibrous material consisting 100% by weight of cellulosic recycle fiber, the improvement which comprises treating the fibrous material with a debonding composition which includes a synergistic combination of:

(a) a quaternary ammonium surfactant component comprising a surfactant compound selected from the group consisting of:

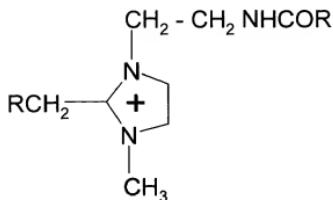
a dialkyldimethylammonium compound of the formula:



a bis-dialkylamidoammonium compound of the formula:



; and a dialkylmethylimidazolinium compound of the formula:



wherein each R may be the same or different and each R indicates a hydrocarbon chain, saturated or unsaturated, having a chain length of from about twelve to about twenty-two carbon atoms; and wherein said compounds are supplied to the fibrous material with a suitable anion; and

- (b) a nonionic surfactant component;

wherein said nonionic surfactant component comprises a surfactant selected from the group consisting of group c or d and wherein group:

- (c) are monoalkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols having an **HLB** value of greater than about 10 wherein said fatty acids and fatty alcohols have 12 carbon atoms or more;
- (d) are dialkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols with an **HLB** value of greater than about 10 wherein said fatty acids or fatty alcohols have about 16 carbon atoms or more;

with the proviso that the debonding composition is operable to reduce the tensile strength of said sheet by at least about 25 percent by application to said fibrous material at a treatment level of 1 mole of said quaternary ammonium surfactant component per ton of fibrous material and further, wherein said nonionic surfactant component is present in said debonding composition in an amount of from about 25 to 60 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component.

56. (Amended) The improvement according to Claim 18, wherein said fibrous material is at least about 75 percent by weight of cellulosic recycle material.

58. (New) The process according to Claim 18, wherein the nonionic surfactant is selected from group c.

59. (New) The process according to Claim 18, wherein the nonionic surfactant is selected from group d.

60. (New) In a process for making an absorbent sheet material from a web of fibrous material consisting predominately of cellulosic recycle fiber, the improvement which comprises treating the fibrous material with a debonding composition which includes a synergistic combination of:

(a) a quaternary ammonium surfactant component; and

(b) a nonionic surfactant component present in said debonding composition in an amount of from about 25 to about 60 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component;

wherein said nonionic surfactant component comprises a surfactant selected from the group consisting of group c or d and wherein group:

(c) are monoalkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols having an **HLB** value of greater than about 10 wherein said fatty acids and fatty alcohols have 12 carbon atoms or more; and

(d) are dialkylated nonionic surfactants comprising alkoxylated fatty acids or alkoxylated fatty alcohols with an **HLB** value of greater than about 10 wherein said fatty acids or fatty alcohols have about 16 carbon atoms or more.

D 8  
D 61. (New) The improvement according to Claim 60, wherein said nonionic surfactant component is present in said debonding composition in an amount of from about 30 to about 50 weight percent based on the combined weights of said nonionic surfactant component and said quaternary ammonium surfactant component.